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SUMMARY
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FOR THE BENEFIT OF THE LESS DEVELOPED AREAS

SUMMARY

Agenda Item: D.1.3

Portugal

CERAMIC MATERIALS AND PRODUCTS
TECHNIQUES OF SCIENTIFIC AND TECHNOLOGICAL CONTROL

By A. J. C. DE CARVALHO,
B. Sc., Chem. Eng., Rand, Ph. D., London

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AGENDA ITEM D.1.3. SUMMARY

CERAMIC MATERIALS AND PRODUCTS -

- TECHNIQUES OF SCIENTIFIC AND TECHNOLOGICAL CONTROL

by A.J.C. de CARVALHO
B.Sc. (Chem.Eng.) (RAND)
Ph. D. (LONDON)

1. Investigations for the improvement of the technological and industrial applications of a Country's natural resources.

In Portugal the National Institute for Industrial Research is carrying out investigations of this type, all aiming at the improvement of the Country's more traditional industries, such as ceramics, the object of this work.

2. Plan of action and facilities available in the field of ceramics.

(a) Enquiries and contacts with the industry-

By direct observation and surveys the status of the art and its evolution trends were clearly pictured as it appeared at home and abroad

(b) Documentation-

Full documentation was collected and a comprehensive library slowly built up, with special emphasis on modern techniques of analytical and technological control of raw materials and finished products.

(c) and (d) Laboratory facilities, collection of samples and classification-

Laboratory facilities are described as well as the techniques used in collecting and classifying industrial samples Nationwise.

3 .Findings of the preliminary surveys and investigations

(a) Standard terminology-

The necessity was observed for the setting up of a standard terminology, specially for the industry's raw materials.

(b) Porcelain, stoneware and whiteware-

It was found that generally speaking, these fields were thriving owing to reasonable technical control on materials, products and in all stages of manufacture proper.

(c) Ordinary Pottery and Faiance-

In these fields a slow death was observed, having remained almost impervious to scientific and technological progress survival seems difficult against competition from aluminium, plastic and cement products.

(d) Bricks and ceramic tiles -

Not dying, but hardly thriving, this field suffered fierce internal competition, the main reason for this being that the buyers are not often the end-users of the products and so place cost above quality and this is a case where production norms and standards should be legally enforced.

4. Conclusions and recommendations

(a) Standards and testing laboratories -

Full justification being found for the existance of a ceramics standards and testing laboratory recommendations are made as to its functions.

(b) Plant controls -

These are described and prescribed.

(c) International terminology, norms and standards -

It is urged that international agreement be reached as soon as possible on terminology, norms and standards for ceramic raw materials and products.

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